

METHODS FOR THE DIAGNOSIS AND TREATMENT OF PREECLAMPSIA

1. TECHNICAL FIELD

The present invention provides novel methods for the diagnosis of preeclampsia by determination of both lower and higher levels of proteins and/or polynucleotides or combinations thereof in patient tissue samples. Furthermore, it presents methods of treatment of preeclampsia through either inhibition of function of proteins or polynucleotides that are expressed higher in preeclampsia, or through replacement therapy of proteins or polynucleotides that are expressed lower in preeclampsia.

1.2 SEQUENCE LISTING

The sequences of the polynucleotides and polypeptides of the invention are listed in the Sequence Listing and are submitted on a compact disc containing the file labeled "821A.txt" – 4.69 MB (4,921,344 bytes) which was created on an IBM PC, Windows 2000 operating system on Thursday, April 1, 2004 at 12:22:06 PM. The Sequence Listing entitled "821A.txt" is herein incorporated by reference in its entirety. A computer readable format ("CRF") and two duplicate copies ("Copy 1" and "Copy 2") of the Sequence Listing "821A.txt" are submitted herein. Applicants hereby state that the content of the CRF and Copies 1 and 2 of the Sequence Listing, submitted in accordance with 37 C.F.R. §1.821(c) and (e), respectively, are the same.

2. BACKGROUND

Preeclampsia is a disorder complicating 5% of pregnancies in U. S. Moreover, it is the second major cause of maternal death in both U. S. and Japan, and is the leading cause of neonatal morbidity and mortality. It is a maternal disease, presenting with wide spectrum of symptoms, including hypertension, edema, proteinuria, fatigue, rapid weight gain, cardiac, pulmonary and renal failure. Pregnancy can further be complicated with hemolytic and liver manifestations, i. e. disease can progress into HELLP syndrome (Hemolysis, which is the breaking down of red blood cells, Elevated Liver enzymes, and Low Platelet count), or can progress into eclampsia, manifested by seizures and eventual death.

The fact that there is no effective predelivery treatment and that ultimately, the treatment of choice is delivery of the placenta, leads to two observations: First, there is a substantial lack of understanding of both etiology and pathophysiology of the disorder. Suggested treatments are